

METHOD AND BASE STATION FOR PROVIDING TRANSMIT DIVERSITY

Abstract of the Disclosure

In accordance with the preferred embodiments of the present invention, a method (400) and a base station (140) for providing a plurality of transmit diversity protocols in a wireless communication system are described herein. In particular, the base station (140) generates a first signal based on a first data stream with a first pilot and a second data stream with a second pilot. That is, the first signal includes the first and second pilots. The first pilot is based on a first orthogonal code and the second pilot is based on a second orthogonal code. The base station (140) generates a second signal based on the first data stream with the first pilot and the second data stream with the second pilot such that the second signal including the first and second pilots is diverse relative to the first signal. Further, the base station (140) phase-shift modulates the first signal to produce a phase-shift modulated signal. Accordingly, the base station (140) transmits the phase-shift modulated signal via a first antenna (210) and the second signal via a second antenna (230).